

[Document] Abstract

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[Problem]

To reduce a leakage current by suppressing the generation of a junction leakage.

[Means to Solve the Problem]

A semiconductor device comprises: a semiconductor region 103, in which an impurity of one conductivity type is doped; a gate insulation layer 105, formed on the semiconductor region 103; a gate electrode 106, formed on the gate insulation layer 105; a lightly doped layer 109a, formed in a region from the principal surface of the semiconductor region 103 to a first depth, in which a first impurity of the other conductivity type is implanted into the semiconductor region 103 with a first dose amount; and a heavily doped layer 109b, formed in a region from the principal surface of the semiconductor region 103 to a second depth, which is shallower than the first depth, in which a second impurity of the other conductivity type is implanted into the semiconductor region 103 with a second dose amount in a range of the first dose amount or more to $1 \times 10^{15}/\text{cm}^2$ or less.

[SELECTED FIGURE] FIG. 1